Claims

1. A method of making information contents of memory cells of a volatile semiconductor memory irretrievable, said method comprising in a first step generating a digital pattern and in a second step overwriting said information contents with said digital pattern at least two times.

2. A method according to claim 1, in which said digital pattern overwrites said information contents alternately with its complementary pattern.

3. A method according to claim 1, in which said digital pattern is a predefined digital pattern comprising both zeros and ones.

4. A Method according to claim 3, in which a ratio of the number of zeros and the number of ones in said predefined digital pattern is about one.

5. A method according to claim 4, in which said ratio differs less than thirty percent from one.

6. A method according to claim 4, in which said ratio is one.

7. A method according to claim 1, in which said digital pattern is a random pattern.

8. A device comprising a cryptographic chip and a tampering signal generating device for generating a tampering signal, said cryptographic chip comprising a volatile semiconductor memory having a plurality of memory cells, a control device for placing a cryptographic key in memory cells of said volatile semiconductor memory, a pattern generating device for generating a digital pattern, an address generating device for generating addresses of said memory cells, said pattern generating device and said address generating device being connectable to said volatile semiconductor memory, said tampering signal generating device being connected to said pattern generating device and said address generating device, said pattern generating device and said address

generating device being adapted for in response to a said tampering signal being connected to said volatile semiconductor memory and overwriting contents of said memory cells with a pattern based upon said digital pattern for at least two times.

9. A device according to claim 8, in which said cryptographic chip comprises first connecting means connecting an output of said pattern generating device to a data input of said volatile semiconductor memory, second connecting means for connecting said address generating device to an address input of said volatile semiconductor memory and a clock generator for generating clock signals for said pattern generating device and said address generating device

10. A device according to claim 8, in which said digital pattern is a predefined digital pattern comprising both zeros and ones.

11. A device according to claim 8, in which said digital pattern alternately is said digital pattern and a complementary pattern of said digital pattern.

12. A device according to claim 9, said device being adapted to have a power down state in which no main power is supplied to said device, said device comprising a battery back up power supply, said pattern generating device, said clock generator and said address generating device being permanently connected to said back up battery power supply.

13. A device according to claim 9, and comprising a digital processor adapted to successively address addresses of said memory cells at a first rate, said clock generating device and said address generating device being adapted when operating together to successively address addresses of said memory cells at a second rate greater than said first rate.

14. A device according to claim 13, in which said second rate is substantially greater than said first rate.

15. A device according to claim 13, in which said second rate

is such that all addresses of said memory cells may be addressed at least three times within 1 millisecond.